DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
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NOTICE OF ACCEPTANCE (NOA)

Sika Sarnafil, A Division of Sika Corp.
100 Dan Road
Canton, MA 02021

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.
This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Sika Sarnafil PVC Single Ply Roofing over Wood Deck

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews and revises NOA No. 14-0624.09 and consists of pages 1 through 19.
The submitted documentation was reviewed by Alex Tigera.

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Wood
Maximum Design Pressure: -45 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
G410	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane.
Textured G410	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane.
G410 Felt	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
Textured G410 Felt	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
G459	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC Alloy asphalt compatible flashing membrane.
S327	48, 60, 72 and mils	ASTM D4434	Polyester reinforced PVC roofing membrane.
S327 (10 ft)	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane.
S327 Felt	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane.
Sikaplan Fastened	45 mils or 60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Sikaplan Fastened Feltback	45 mils or 60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Sikaplan Adhered	60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Sarnatape	Various	Proprietary	Air flow barrier tape
Sarnacol 2170	5 gallons	Proprietary	Solvent based bonding adhesive.
Sarnacol AD Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane or insulation adhesive.
Sikaplan Water Based Membrane Adhesive	5 gallons	Proprietary	Water-based dispersion membrane adhesive.
Sarnacol OM Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane adhesive.
Sarnacol 2170 VC	Various	Proprietary	Solvent-based, VOC compliant adhesive.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Sarnatred	3.25' x 32.8'	Proprietary	PVC walkway protection sheet.
Sarnavap-10	20' x 100'	Proprietary	Polyethylene air/vapor barrier.
Sarnastack	Various	Proprietary	Prefabricated cone flashing.
Sarnaclad	Various	Proprietary	Heat weldable PVC/galvanized steel flashing
FR 10	48" x 250'	Proprietary	Non-asphaltic fiberglass-based fire-retardant slipsheet
FR 50	48" x 105'	Proprietary	Non-asphaltic fiberglass-based fire-retardant slipsheet

APPROVED INSULATIONS:

TABLE 2

Product	Product Description	Manufacturer (with current NOA)
Sarnatherm	Isocyanurate Insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm 25 PSI	Polyisocyanurate insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm (a)	Isocyanurate Insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
ACFoam-II	Isocyanurate Insulation with fiber reinforced felt paper facer	Atlas Roofing Corp.
ACFoam-III	Isocyanurate Insulation with coated glass facer	Atlas Roofing Corp.
ACFoam Supreme	Isocyanurate Insulation with foil facer	Atlas Roofing Corp.
DensDeck	Silicon treated gypsum with fiberglass mat facer	Georgia Pacific Gypsum LLC
DensDeck Prime	Silicon treated gypsum with an enhanced fiberglass mat facer	Georgia Pacific Gypsum LLC
ENRGY 3	Isocyanurate Insulation with fiber reinforced felt paper facer	Johns Manville Corp.
ENRGY 3 25 PSI	Isocyanurate Insulation with fiber reinforced felt paper facer	Johns Manville Corp.
Type X Gypsum	Gypsum Wallboard	Generic
H-Shield	Isocyanurate Insulation with fiber reinforced felt paper facer	Hunter Panels, LLC
ISO 95+ GL	Isocyanurate Insulation with fiber reinforced felt paper facer	Firestone Building Products Company, LLC

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	#12 Standard Roofgrip, #14 Roofgrip, #15 Roofgrip	Insulation and membrane fastener	Various	OMG, Inc.
2.	Dekfast 12, Dekfast 14, Dekfast 15 HS	Insulation and membrane fastener	Various	SFS Intec, Inc.
3.	Sarnafastener	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
4.	Sarnaplate	Insulation fastening plate.	3" Round	Sika Sarnafil, A Division of Sika Corp.
5.	Sarnabar	Galvanized or stainless steel membrane fastening bar.	Various	Sika Sarnafil, A Division of Sika Corp.
6.	Sarnafastener #14	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
7.	OMG Heavy Duty	Insulation and membrane fastener	Various	OMG, Inc.
8.	Sarnafastener-XP	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
9.	Sarnadisc-XPN	Insulation and membrane fastener	1.5" x 3.75"	Sika Sarnafil, A Division of Sika Corp.
10.	Dekfast Isofast IF/IG-C-82x40	Membrane and insulation fastening plate	3.25" x 1.625"	SFS Intec Inc.
11.	Sikaplan Board Fastener #12	Insulation and membrane fastener	Various	Sika Sarnafil, A Divison of Sika Corp.
12.	Sikaplan Fastener #14	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
13.	Flat Bottom Metal Plate	Insulation fastening plate.	3" Round	OMG, Inc.
14.	3 in. Ribbed Galvalume Plate	Round galvalume plated steel stress plate	3" Round	OMG, Inc.
15.	Sikaplan Board Plate	Round galvalume plated steel stress plate	3" Round	Sika Saranfil, A Division of Sika Corp.
16.	RhinoBond Insulation Plate	Black primer coated plate for use with PVC membranes	3" Round	OMG, Inc.
17.	Sarnadisc RhinoBond	Black primer coated plate for use with PVC membranes	3" Round	Sika Sarnafil, A Division of Sika Corp.
18.	Sikaplan RhinoBond Disc	Black primer coated plate for use with PVC membranes	3" Round	Sika Sarnafil, A Division of Sika Corp.

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Celotex Technical Center	MTS Job No. 258215	TAS 114	09/09/97
Factory Mutual Research	0X3A3.AM	FM 4470	01/31/94
	3016201	FM 4470	01/28/03
	3021131	FM 4470	07/07/05
	3028309	FM 4470	03/30/07
	3032532	FM 4470	08/05/08
	3030053	FM 4470	09/12/07
	3039809	FM 4470	07/06/11
	3043459	FM 4470	05/11/12
	3012588	FM 4470	12/28/04
	3000858	FM 4470	05/14/99
	3001396	FM 4470	05/28/99
	3036355	FM 4470	11/10/09
	3035670	FM 4470	05/13/09
Underwriters Laboratories, Inc.	R8992	UL 790	05/15/13
Trinity | ERD	S44790.06.13	ASTM D4434	06/05/13
	S42480.08.12	Physical Properties	08/20/12
	S44790.08.13	ASTM D4434	08/26/13
	S44790.07.14-R2	ASTM D4434	06/01/15
	S45990.06.14	ASTM D4434	06/02/14

APPROVED ASSEMBLIES:

Membrane Type: Single Ply, PVC

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type B(1): Base layer of insulation mechanically fastened top layer fully adhered with Approved asphalt, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or base layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum , 1/4" DensDeck

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield		
Minimum 1.3" thick or tapered	**1, 2, 3, 4 & 13**	**1:2 ft²**
Minimum 2" thick or tapered	**1, 2, 3, 4 & 13**	**1:4 ft²**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 PSI-25		
Minimum 1.4" thick or tapered	**1, 2, 3, 4 & 13**	**1:2.9 ft²**
Minimum 2" thick or tapered	**1, 2, 3, 4 & 13**	**1:4 ft²**
DensDeck Prime		
Minimum 1/4" thick	**1, 2, 3, 4 & 13**	**1:1.2 ft²**
Minimum 1/2" thick	**1, 2, 3, 4 & 13**	**1:1.7 ft²**

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastener details).

Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III		
Minimum 1.3" thick or tapered	**N/A**	**N/A**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, H-Shield		
Minimum 1.4" thick or tapered	**N/A**	**N/A**

DensDeck Prime
Minimum 1/4" thick **N/A** **N/A**

Note: Top layer of insulation shall be bonded in a hot mopping of approved asphalt at an application rate of 25 lbs./sq. +/- 15%.

Membrane:

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive roller applied at a rate of 1.0-1.25 gal/sq. as a primer to the insulation allowed to dry. Followed by a second coat at 1.0 gal/sq. to the insulation. The roof cover is then immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410, Textured G410 S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With DensDeck Prime*) Sarnafil G410, Textured G410 S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive roller applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ACFoam-II, H-Shield, ACFoam-III, ENRGY 3, Sarnatherm (a), Sarnatherm & Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive roller applied at a rate of 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(*With ACFoam-II, H-Shield, ACFoam-III, ENRGY 3, Sarnatherm (a), Sarnatherm & Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type B(2): Base layer of insulation mechanically fastened top layer fully adhered with Approved asphalt, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or base layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum , 1/4" DensDeck

One or more layers of any of the following insulations:

Base Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, H-Shield		
Minimum 1.3" thick or tapered	**11, 14 & 15**	**1:2 ft²**
Minimum 2" thick or tapered	**11, 14 & 15**	**1:4 ft²**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 PSI-25		
Minimum 1.4" thick or tapered	**11, 14 & 15**	**1:2.9 ft²**
Minimum 2" thick or tapered	**11, 14 & 15**	**1:4 ft²**
DensDeck Prime		
Minimum 1/4" thick	**11, 14 & 15**	**1:1.2 ft²**
Minimum 1/2" thick	**11, 14 & 15**	**1:1.7 ft²**

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastener details).

Top Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III		
Minimum 1.3" thick or tapered	**N/A**	**N/A**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, H-Shield		
Minimum 1.4" thick or tapered	**N/A**	**N/A**

Note: Top layer of insulation shall be bonded in a hot mopping of approved asphalt at an application rate of 25 lbs./sq. +/- 15%.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood or wood plank

System Type C(1): All layers of insulation simultaneously fastened, membrane adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or base layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck.

One or more layers of any of the following insulations:

Base Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ACFoam Supreme, H-Shield		
Minimum 1.3" thick or tapered	**N/A**	**N/A**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, ISO 95+ GL, H-Shield		
Minimum 1.4" thick or tapered	**N/A**	**N/A**
DensDeck Prime		
Minimum: ¼ " Thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application RAS 117 for fastener details).

Top Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III		
Minimum 1.3" thick or tapered	**1, 2, 3, 4 & 13**	**1:2 ft²**
Minimum 2" thick or tapered	**1, 2, 3, 4 & 13**	**1:4 ft²**
Sarnatherm (a), Sarnatherm, Sarnatherm 25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, ISO 95+ GL, H-Shield		
Minimum 1.4" thick or tapered	**1, 2, 3, 4 & 13**	**1:2.9 ft²**
Minimum 2" thick or tapered	**1, 2, 3, 4 & 13**	**1:4 ft²**

Top Insulation Layer: (Continued)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck Prime		
Minimum: ¼ " Thick	**1, 2, 3, 4 & 13**	**1:1.2 ft²**
Minimum: ½ " Thick	**1, 2, 3, 4 & 13**	**1:1.7 ft²**

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application RAS 117 for fastener details).

Membrane:

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive roller applied at a rate of 1.0-1.25 gal/sq. as a primer to the insulation allowed to dry. Followed by a second coat at 1.0 gal/sq. to the insulation. The roof cover is then immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410, Textured G410 S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive roller applied at a rate of 0.75-2 gal/sq. to the substrate followed by a second coat at a rate of 0.5 gal/sq. to the back of the membrane or Sarnacol 2121 adhesive applied at a rate of 0.75 gal/sq. to the substrate. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ACFoam-II, H-Shield, ACFoam-III, Sarnatherm (a), Sarnatherm & Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410, Textured G410 S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive roller applied at a rate of 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(*With ACFoam-II, H-Shield, ACFoam-III, Sarnatherm (a), Sarnatherm & Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood or wood plank

System Type C(2): All layers of insulation simultaneously fastened, membrane adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): An FM approved vapor Barrier approved for use with hot asphalt may be applied to the deck or base layer.

Fire Barrier (Optional): Minimum 5/8" Type X Gypsum, 1/4" DensDeck.

One or more layers of any of the following insulations:

Base Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ACFoam Supreme, H-Shield		
Minimum 1.3" thick or tapered	**N/A**	**N/A**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, ISO 95+ GL, H-Shield		
Minimum 1.4" thick or tapered	**N/A**	**N/A**
DensDeck Prime		
Minimum: ¼ " Thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application RAS 117 for fastener details).

Top Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III		
Minimum 1.3" thick or tapered	**11, 14 & 15**	**1:2 ft²**
Minimum 2" thick or tapered	**11, 14 & 15**	**1:4 ft²**
Sarnatherm (a), Sarnatherm, Sarnatherm 25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 25 PSI, ISO 95+ GL, H-Shield		
Minimum 1.4" thick or tapered	**11, 14 & 15**	**1:2.9 ft²**
Minimum 2" thick or tapered	**11, 14 & 15**	**1:4 ft²**

Top Insulation Layer: (Continued)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
DensDeck Prime		
Minimum: ¼ " Thick	**11, 14 & 15**	**1:1.2 ft²**
Minimum: ½ " Thick	**11, 14 & 15**	**1:1.7 ft²**

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application RAS 117 for fastener details).

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive applied at a rate of 0.75 gal/sq. to the substrate. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood or wood plank

System Type C(3): All layers of insulation simultaneously fastened; membrane adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: Minimum $^1/_2$" DensDeck or DensDeck Prime

One or more layers of any of the following insulations:

Base Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sarnatherm, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional):	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Any approved cover board listed in Table 2 Minimum 0.25" thick	**6 & 7**	**See Design Pressure**

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400ºF. Minimum 3" wide side lap is sealed with a minimum ¾" wide heat weld.

	Maximum Pressure	**Fastener Spacing**	**Fastener Row Spacing**
Maximum Design Pressures:	-45 psf (See General Limitation #9)	2 ft.	3 ft.

Membrane Type: Single Ply, PVC

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood or wood plank

System Type C(4): All layers of insulation simultaneously fastened; membrane adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: Minimum $^1/_2$" DensDeck or DensDeck Prime

One or more layers of any of the following insulations:

Base Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Sarnatherm, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional):	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Any approved cover board listed in Table 2 Minimum 0.25" thick	**7 & 12**	**See Design Pressure**

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400ºF. Minimum 3" wide side lap is sealed with a minimum ¾" wide heat weld.

Maximum Design Pressures:	**Maximum Pressure**	**Fastener Spacing**	**Fastener Row Spacing**
	-45 psf (See General Limitation #9)	2 ft.	3 ft.

Membrane Type: Single Ply, PVC

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: 19/32" or greater plywood or wood plank

System Type D(1): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional): Sarnavap-10 vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional): Minimum 5/8" gypsum, 1/4" DensDeck, or Atlas FR 10 or FR 50.

Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sarnatherm, H-Shield Minimum: 1.5" thick	N/A	N/A

Note: All insulation require preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft. and four fasteners for any insuation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 attached to deck as specified below.

Fastening #1: Sarnafastener #14 with approved discs spaced 6" o.c. within the 5.5" side lap spaced 73" o.c. and sealed with a minimum 1.5" weld

Fastening #2: Sarnafastener #14 with approved discs spaced 6" o.c. in rows 12' o.c. maximum or Sarnabars spaced 12' o.c. maximum fastened with Sarnafasteners spaced 6 in. o.c., through the field of the membrane and covered with a 7" minimum width coverstrip with 1.5" welds on each side.

Maximum Design Pressure: -45.0 psf. (See General Limitation #7)

Membrane Type: Single Ply, PVC

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: 19/32" or greater plywood or wood plank

System Type D(2): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer:	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Any approved polyiso listed in table 2 above Minimum: 1.5" thick	N/A	N/A

Note: All insulation require preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft. and four fasteners for any insuation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 attached to deck as specified below.

Fastening: Sarnafastener-XP with Sarnadisc-XPN spaced 12" o.c. within the 5.25" side lap spaced 73.5" o.c. and sealed with a minimum 1.5" weld.

Maximum Design Pressure: -45.0 psf. (See General Limitation #7)

Membrane Type: Single Ply, Thermoplastic, PVC

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood or wood plank

System Type D(3): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply:

Fire Barrier: (Optional) Minimum 5/8" Type X Gypsum , 1/4" DensDeck

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ACFoam Supreme, H-Shield **Minimum 1.3" thick or tapered**	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ENRGY 3 PSI-25, H-Shield **Minimum 1.4" thick or tapered**	N/A	N/A
DensDeck, DensDeck Prime **Minimum: ¼ " thick**	N/A	N/A
ISO 95+ GL **Minimum: 1.4" thick or tapered**	N/A	N/A

Note: All insulation require preliminary attachment prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft. and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 attached to deck as specified below.

Fastening: Sarnafastener #14 with Sarnabars, Sarnadisc-XPN or Dekfast 12 fasteners with Dekfast Isofast IF/IG-C-82x40 plates spaced 6" o.c. within the 5.5" side lap spaced 73" o.c. and sealed with a minimum 1.5" weld or Sarnafastener #14 with Sarnabars, Sarnadisc-XPN or Dekfast 12 fasteners with Dekfast Isofast IF/IG-C-82x40 plates spaced 6" o.c. in rows 12' o.c. maximum through the field of the membrane and covered with a 7" minimum width coverstrip with 1.5" welds on each side.

Maximum Design Pressure: -45 psf. (See General Limitation #7)

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
   Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE